REMARKS

Reconsideration is requested.

Claims 1-33 have been canceled, without prejudice. Claims 34-58 have been added and are pending. No new matter has been added.

A Notice of Change of Address is attached. The Office is requested to direct future correspondence relating to this application to the undersigned.

Claims 1 and 31 have been rewritten as new claims 34 and 55, respectively and specify that the promoter sequence is a eukaryotic promoter active in nerve cells. Support for the recitations may be found, for example, at page 11, lines 16-18, and the examples, of the specification.

Claim 4 has been rewritten as new claim 37 and further specifies the previously abbreviated terms CNTF, IGF and FGF. The term "neutrophin" has been corrected by "neurotrophin".

Claim 23 has been rewritten as new claim 45 and further specifies the abbreviations NGF, BDNF, NT3, NT4/5, NT6, CNTF, LIF, IL6, GDNF, and TFG. The term "neutrophin" has been corrected by "neurotrophin", as noted above with regard to claim 37.

Claim 33 has been rewritten as new claim 55 and specifies the abbreviations NGF, BDNF, NT3, NT4/5, NT6, CNTF, LIF, IL6, GDNF, IGF, FGF, and TFG.

An error in referring to NGF in now-cancelled claims 23 and 33, has been corrected in the corresponding new claims 45 and 55. Support for the amendments may be found, for example, at page 7, line 24 of the specification.

New claim 56 is directed to an expression method. New claim 57 is directed to an expression method allowing a specific expression in glial cells. Support for the new claims may be found, for example, at page 5, lines 3-15 and in example 6 of the specification. New claim 58 specifies a list of promoters, as described, for example, on pages 12-13 of the specification.

No new matter has been added.

The objections of claims 4, 23 and 33 noted on page 2 of the Office Action dated September 23, 2004 (Paper No. 13) is moot in view of the above.

The Section 112, first paragraph, rejection of claims 18, 25-27 and 30 is moot in view of the above. The subject matter of now-canceled claims 18, 25-27 and 30 has not been repeated in the newly presented claims, to advance prosecution, and without prejudice.

The Section 102 rejection of claims 1-4, 9, 10, 16, 17, 23, 24, 28, 29 and 31-33 over Boyce (WO9812311) is moot in view of the above amendments. The claims are submitted to be patentable over the cited art and consideration of the following in this regard is requested.

Boyce et al do not prove the capacity of a recombinant baculovirus to infect and express an exogeneous gene in a neural cell both *in vivo* and *in vitro*. Indeed, Boyce et al disclose an *in vitro* result on PC12 cells. These cells only exhibit a pseudoneuronal phenotype and the level of expression was very slightly higher than that of the control. Therefore, the person of ordinary skill in the art would not deduce from this result that baculovirus can be used in neural cells. Moreover, the applicants believe that Boyce et al do not disclose any *in vivo* result. Considering the very weak efficiency of the

baculovirus in vitro on PC12 cells, the applicants believe that a person of ordinary skill in the art would conclude that the baculovirus system can not be used *in vivo* to transduce neural cells.

Therefore, the person of ordinary skill would not prepare a baculovirus comprising a heterologous nucleic acid sequence encoding a product of therapeutic interest for the treatment of diseases of the nervous system.

The applicants submit that the Boyce et al disclosure fails to anticipate the pending claims because the cited art fails to teach how to make and/or use a recombinant baculovirus for neural cells both *in vivo* and *in vitro*. The Examiner is urged to appreciate that the applicants have, for the first time, demonstrated that baculovirus can be efficiently used for the expression of a heterologous gene in the central nervous system. This result was unexpected in view of the PC12 results of Boyce et al. The claims are submitted to be patentable over Boyce et al.

The Section 102 rejections of claims 1-4, 23 and 31-33 over each of Li et al. (Biochem J. 324:461-466 (1997)), DiFalco et al. (Biochem J. 326; 407-413 (1997)), Meyer et al. (J. Neurochem. 62, 3, 825-833 (1994)), Fandl (J. Biol. Chem. 269, 1, 755-759 (1994)) and Luo et al (J. Biol. Chem. 267, 17, 12275-12283 (1992)) are moot. The Section 102 rejection of claim 5 over Gritson et al. (Nucl. Acids Res., vol. 25, No. 9, 1864-1865 (1997)) is moot. The claims are submitted to be patentable over the cited art and consideration of the following in this regard is requested.

Li et al. disclose recombinant baculovirus comprising the gene encoding neurotrophin 6 (NT-6). However, this gene encoding NT-6 is not under the control of a eukaryotic promoter active in nerve cells as required by the claims. The baculovirus

disclosed in Li et al. is part of an insect protein expression system. In this baculovirus vector, the gene to be expressed is generally under the control of a baculovirus promoter, more particularly, the polyhedrin gene promoter or the P10 gene promoter. Li et al used a pVL1392 vector (page 462, left column, second paragraph) comprising a polyhedrin gene promoter.

Li et al do not disclose a recombinant baculovirus comprising a gene encoding NT-6 operatively associated with a eukaryotic promoter sequence, as required by the claims. The claims are patentable over Li et al.

DiFalco et al disclose recombinant baculovirus comprising the gene encoding IGF-2. However, this gene encoding IGF-2 is not under the control of a eukaryotic promoter active in nerve cells as required by the claims. The baculovirus disclosed in DiFalco et al. is part of an insect protein expression system and the gene encoding IGF-2 in under the control of a baculovirus promoter. DiFalco et al used a pBluebacIII vector (page 408, left column, first paragraph) comprising a polyhedrin gene promoter.

DiFalco et al do not disclose a recombinant baculovirus comprising a gene encoding IGF-2 operatively associated with a eukaryotic promoter sequence. The claims are patentable over DiFalco.

Meyer et al disclose recombinant baculovirus comprising the gene encoding brain derived neurotrophic factor (BDNF) and neurotrophin 3 (NT-3). However, this gene encoding BDNF or NT-3 is not under the control of a eukaryotic promoter active in nerve cells as required by the pending claims. The baculovirus disclosed in Meyer et al. is part of an insect protein expression system and the gene encoding BDNF or NT-3 is under the control of a baculovirus promoter. Meyer et al used pVL1393 and pVL1393

vectors (page 826, right column, first paragraph; Figure 1) comprising a polyhedrin gene promoter.

Meyer et al do not disclose a recombinant baculovirus comprising a gene encoding BDNF or NT-3 operatively associated with a eukaryotic promoter sequence. The claims are patentable over Meyer et al.

Fandl et al disclose recombinant baculovirus comprising the gene encoding neurotrophin 4 (NT-4). However, this gene encoding NT-4 is not under the control of a eukaryotic promoter active in nerve cells required by the pending claims. The baculovirus disclosed in Fandl et al. is part of an insect protein expression system and the gene encoding NT-4 in under the control of a baculovirus promoter. Fandl et al used a pBlueBac2 vector (page 755, right column, last paragraph) comprising a polyhedrin gene promoter.

Fandl et al do not disclose a recombinant baculovirus comprising a gene encoding NT-4 operatively associated with a eukaryotic promoter sequence. The claims are patentable over Fandl.

Luo et al disclose recombinant baculovirus comprising the gene encoding beta nerve growth factor. However, this gene encoding beta nerve growth factor is not under the control of a eukaryotic promoter active in nerve cells as required by the pending claims. The baculovirus disclosed in Luo et al. is part of an insect protein expression system and the gene encoding beta nerve growth factor in under the control of a baculovirus promoter. Luo et al used a pVL1393 vector (page 12276, left column, third paragraph) comprising a polyhedrin gene promoter.

Luo et al do not disclose a recombinant baculovirus comprising a gene encoding beta nerve growth factor operatively associated with a eukaryotic promoter sequence. The claims are patenable over Luo et al.

Gritson et al disclose recombinant baculovirus comprising the gene encoding beta glucuronidase. However, this gene encoding beta glucuronidase is not under the control of a eukaryotic promoter active in nerve cells as required by the pending claims. The gene encoding beta glucuronidase is under the control of a baculovirus promoter, more particularly P10 (page 1880, left column, last paragraph). Moreover, as shown on figure 1, the strategy disclosed in Gritson et al lead to a gene under the control of the polyhedrin promoter.

Gritson et al do not disclose a recombinant baculovirus comprising a gene encoding beta glucuronidase operatively associated with a eukaryotic promoter sequence. The claims are submitted to be patentable over Gritson et al.

The Section 103 rejection of claims 6 and 7 over Boyce in view of Gritson is moot in view of the above.

The claims are submitted to be in condition for allowance and a Notice to that effect is requested. The Examiner is requested to contact the undersigned in the event anything further is required.

Respectfully submitted,

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